The State of the Land

Analysis of Land Use Change in Montana and the Three Regions

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Perception that the traditional agricultural use of private land is giving way to rural homesites, roads, and development

- ✓ An emergent bias that agricultural operations should be conserved:
- ✓ control encroachment of urban sprawl
- ✓ preserve traditional heritage and culture
- ✓ maintain open space for native species habitat and preservation of water quality

This analysis will use Census of Agriculture data for the decade 1987-1997 examine changes in:

- ✓ Farm structure
- ✓ Production patterns
- ✓ Statewide and regional trends

In addition – three sidebars are included:

- ✓ Who Lives in the Countryside – results of a survey of 400 homes in Gallatin County
- ✓ Role of CRP in constraining rural sprawl
- ✓ Land use change forecasting and unforeseen consequences

Montana has no monitoring process for land use change

- ✓ Census of Agriculture is a universal survey of private land production over time
- ✓ It will tell us changes to agricultural use of private land at the county level
- ✓ It will not provide spatial reference to the land nor will it tell us why land changes

What we do know about why land changes

- ✓ Two forces at work:
- ✓ pull factors – clean environment, recreation, safe communities, scenic beauty
- ✓ push factors – dynamic economies, inexpensive land, jobs, "cheap" land

Many counties in Montana are experiencing change as a result of these forces – positive and negative

Effects of land use change

✓**Socioeconomic**

-Landowner Structure

-Community History & Culture

-Agriculture Lands

-Open Space/View

-Cost Of Residential Service

-Political/ Economic Structure

-Quality Of Life

Ecological

-Water Pollution & Sewage

-Fragmented Habitat

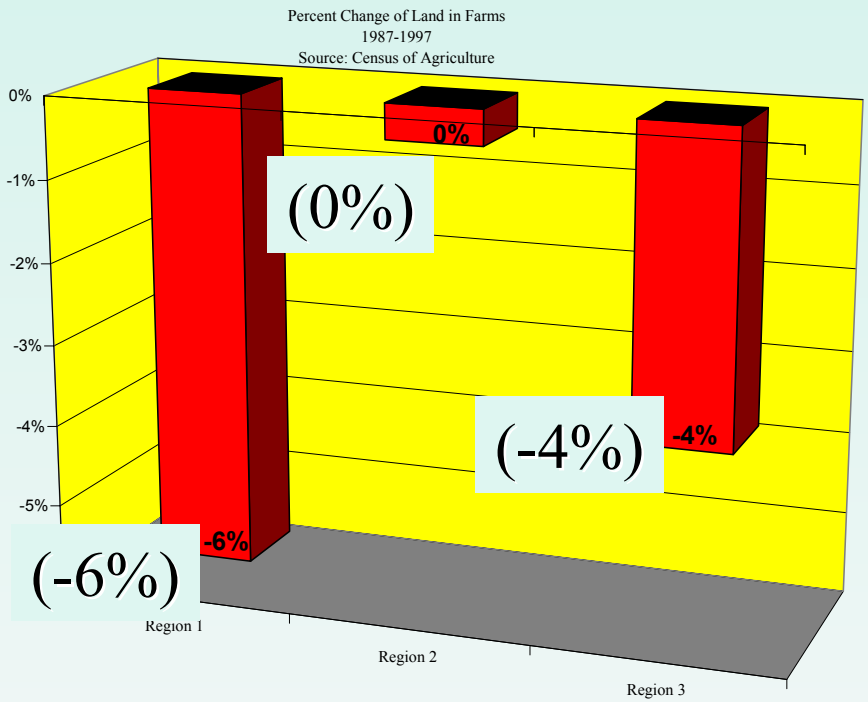
-Threats To Biodiversity

-Land Use Conversion

-Source/Sink Effects

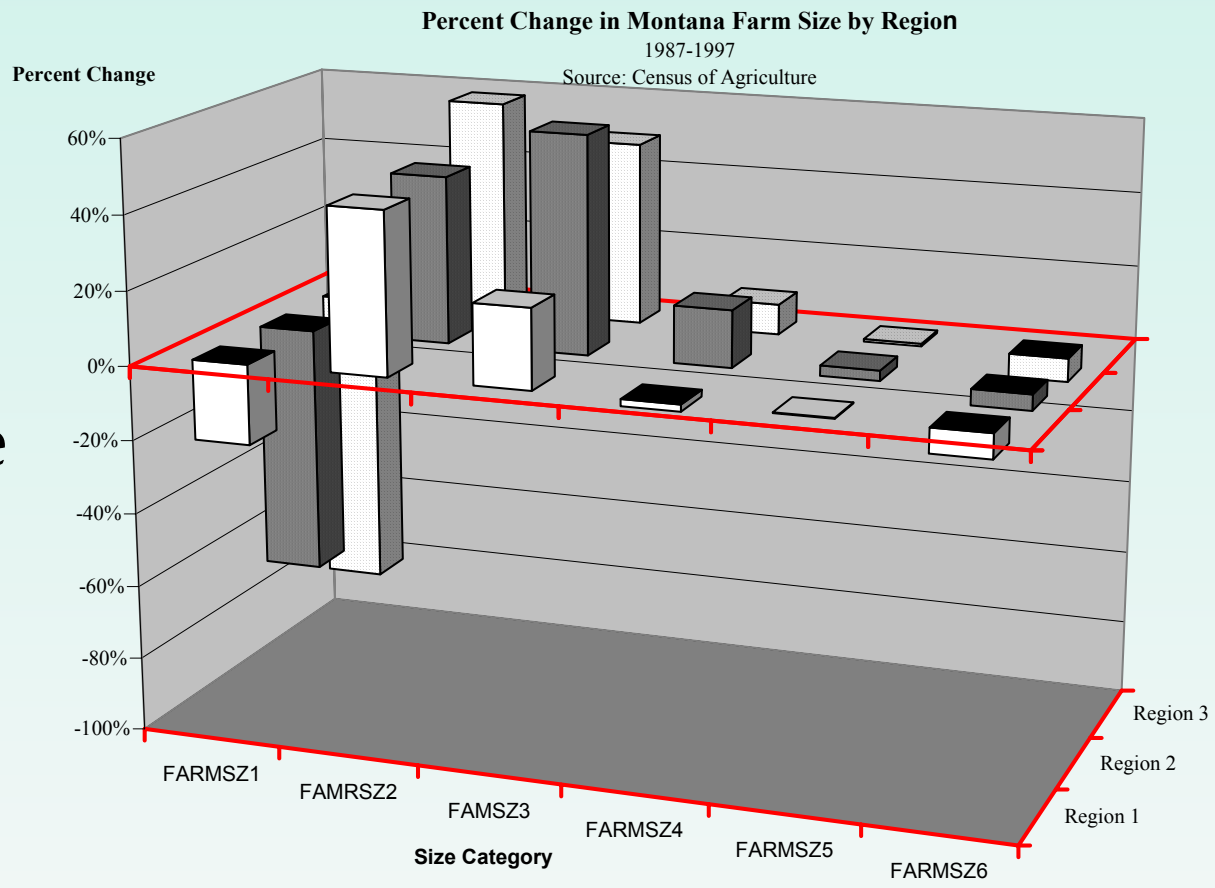
Changes in Farms – land in farms

- ✓ Relatively stable over time. For the state the number of acres in farmland fell by 2.65% between 1987 and 1997. MT lost 289 farms.
- ✓ Regionally, decreases are disproportionately located in the western region.



Size of farms

- ✓ Large farms (>500 acres) are unchanged
- ✓ Very small farms (<10 acres) are on the decline
- ✓ Mid-size farms (10 – 160 acres) are on the rise



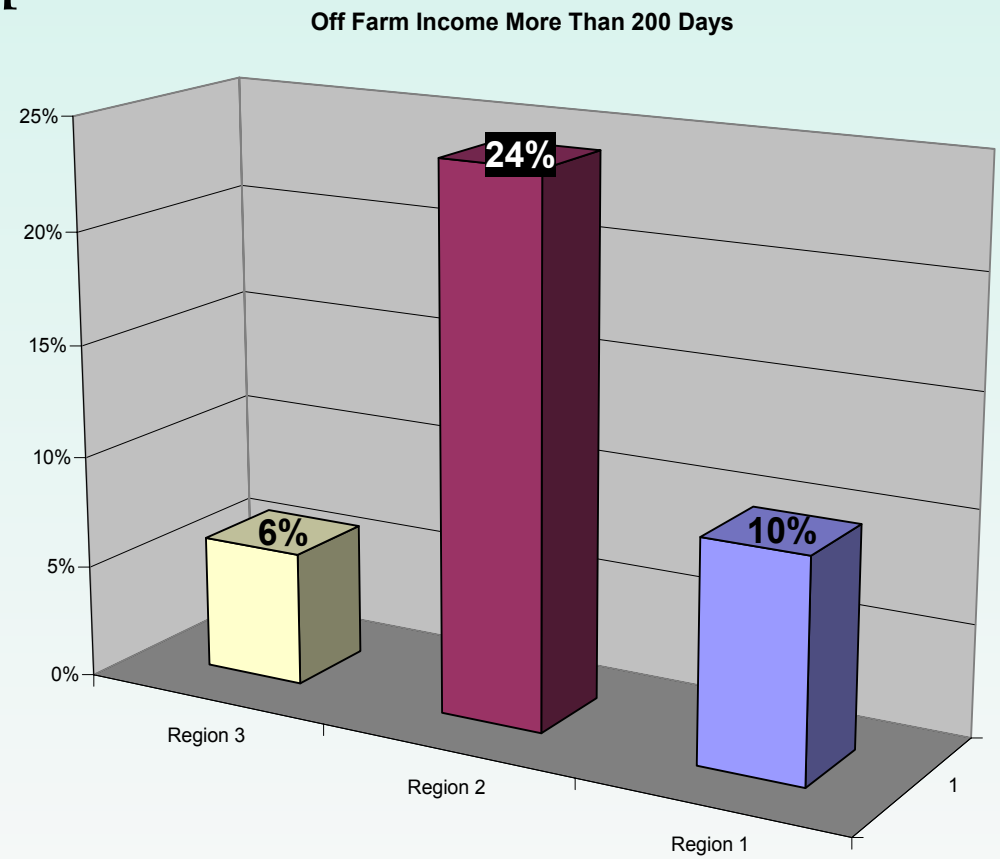
Norman C. Wheeler and Associates

survey: sales of rural properties of ≥1,000 acres was up 62 percent over 2001. Total dollars invested increased 96% to $149 million.

- ✓ Probably two types of buyers – the "typical" second home buyer. A ranch in MT offers good value.
- ✓ Corporate and the very wealthy purchase recreation properties (90% nonresidents).

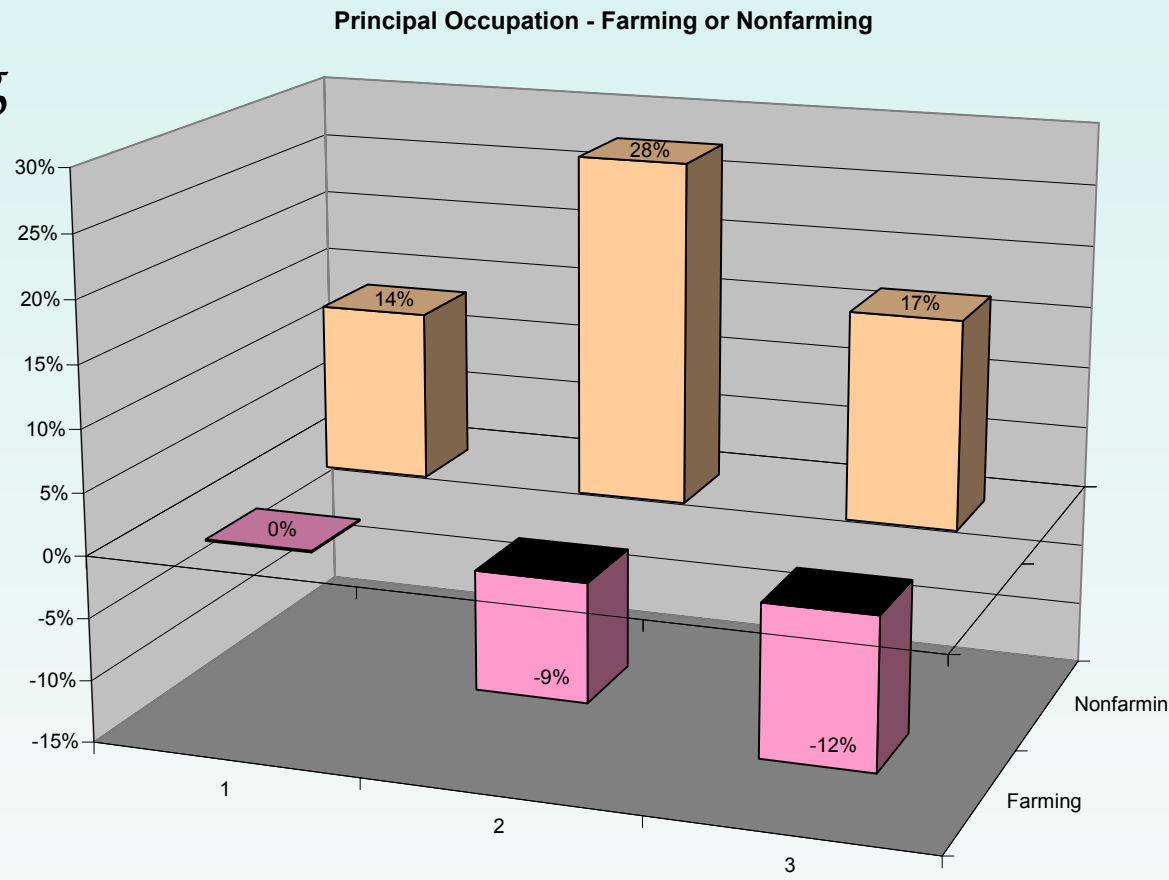
Farmer Demographics

- ✓ Average age is 54
- ✓ Many, 24% in region two, work off farm but still consider themselves farmers and ranchers



Farmer demographics con't

- Many landowners now consider their main economic activity as something other than farming
- This might have implications to natural resource managers



Food Security Act and CRP

CRP allows farmers to enroll erodable or otherwise ecologically sensitive croplands into a conservation land bank in return for annual payments over 10 years.

Montana ranks fourth in the nation in CRP enrollment.

CRP and Community Impacts

Positive Effects

- ✓Minimize soil erosion
- ✓Watershed protection
- ✓Increases ecosystem integrity
- ✓Stabilizes farm income

Negative Effects

- ✓Decreased farm employment
- ✓Less local direct spending on ag-related goods and services
- ✓More time to go and shop in regional centers

Growth Scenario #1

1990 - 1994  2000

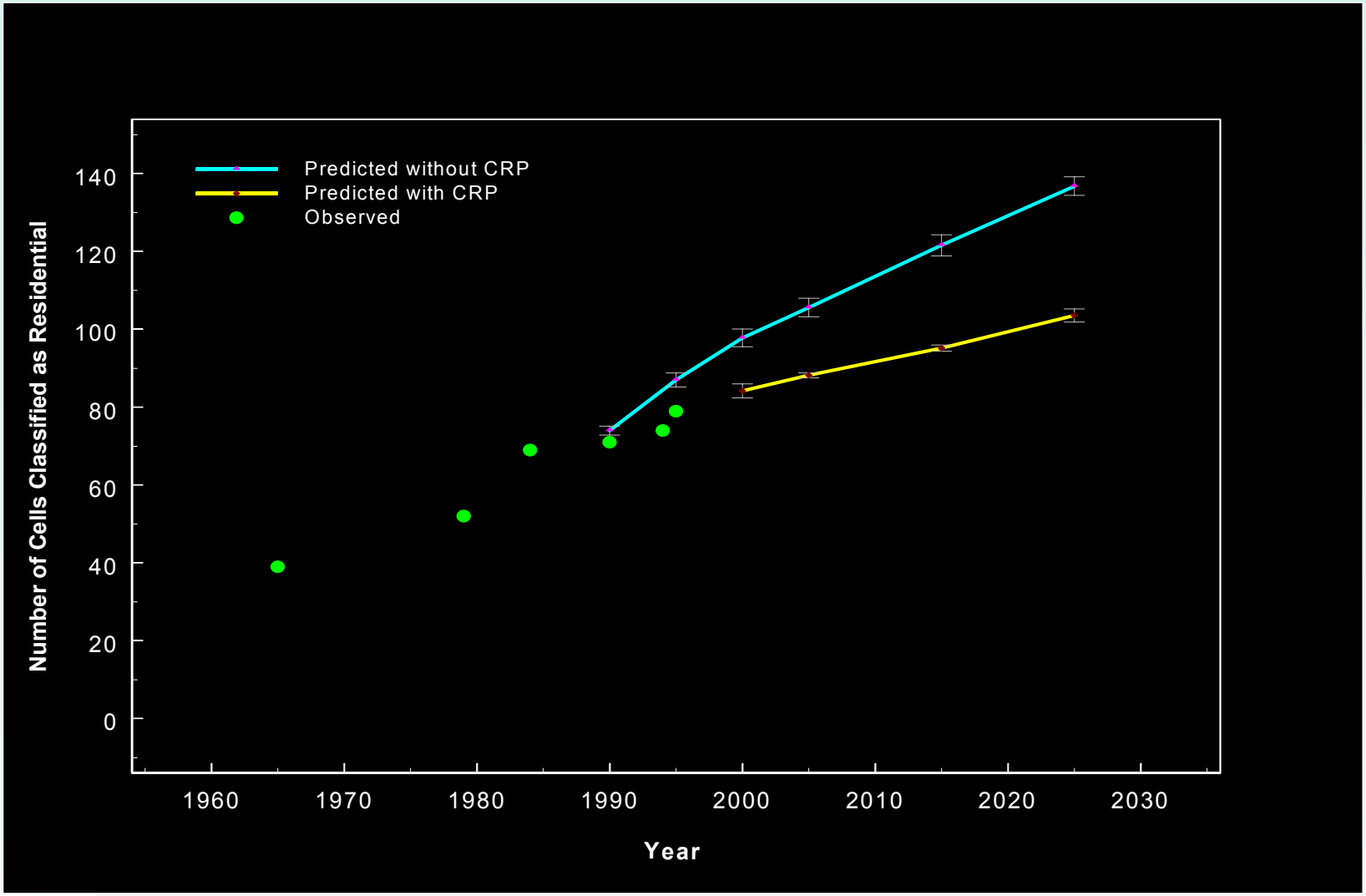
Years of land use change including CRP intervention

Growth Scenario #2

1979 - 1984  2000

Years of land use change before CRP intervention

LUCCPS: Predicting Urbanization In Response To CRP



At the statewide and regional levels, the commonly held assertion that Montana is undergoing dramatic land use change as a result of loss of farms and farmland is not supported by the available data contained in the Census of Agriculture between 1987 and 1997.

Most would agree there are "hotspots" of growth and landscape change, within especially region one.

- ✓ The issue is the scale at which these changes are occurring and the impact both on resources and management.
- ✓ Identification of these hotspots is very problematic without fine scale data.
- ✓ While rural residential development attracts a great deal of attention, the reality of most settlement patterns is that they are in relatively close proximity to existing micropolitan centers.

An effort to collect and maintain fine scale data would allow:

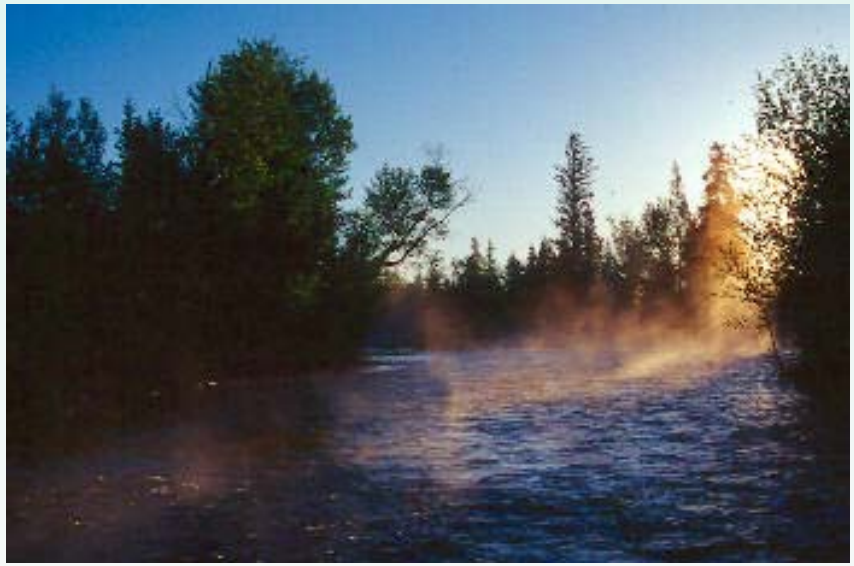
- ✓ Land use transition modeling
- ✓ Land use change investigation
- ✓ Landownership investigation

Proactive rather than reactive agency planning

The special case of water:

Three main concerns:

- ✓ stream access
- ✓ coal bed methane development
- ✓ groundwater impacts



Stream access

- ✓ The four challenges to the Stream Access Law have all been based on regulatory takings
- ✓ All have been filed by either recent arrivals or nonresident landowners

Coal bed methane development

- ✓Saline groundwater
- ✓Threats to current value of land for other uses – agricultural, residential, recreational

Groundwater Impacts

- ✓ Residential outflow and impact on water quality
- ✓ Interrupted or foregone agricultural irrigation may impair groundwater recharge

Anything Positive?

- ✓ The wealthy landowner is interested in high quality and recreational opportunity
- ✓ Wetland and stream reclamation
- ✓ Less profit oriented land management regimes
- ✓ Conservation easements
- ✓ "Source" locations for public assets

Conclusion

- ✓ At the larger scales, the land isn't changing as fast as we think it is
- ✓ "Hotspots" of growth mean more challenges are local than regional and statewide
- ✓ Need for a high quality/high resolution land data base to inform the conversation
- ✓ Private behavior may be producing public good